UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,519	07/20/2001	Wylci Fables	SSR-P1D	3023

26793 7590 02/08/2006

LEIGHTON K. CHONG
GODBEY GRIFFITHS REISS & CHONG
1001 BISHOP STREET, PAUAHI TOWER SUITE 2300
HONOLULU, HI 96813

EXAMINER	
RAMPURIA, SATISH	
ART UNIT	**PAPER NUMBER**
2191	

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/910,519	FABLES ET AL.	
	Examiner	Art Unit	
	Satish S. Rampuria	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 November 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

1. This action is in response to the Amendment received on Nov. 7, 2005.
2. The objection to specification still stand objected Applicant's are reminded to correct the status of the parent priority application.
3. The rejection under judicially created doctrine of obviousness-type double patenting to claims 21, 22, 24, 25, 26 and 35 still stand rejected.
4. Claims 21 and 27-36 are amended by the Applicants.
5. Claims 21-40 are pending.

Response to Arguments

6. Applicant's arguments with respect to claims have been considered but they are not persuasive.

In the remarks, the applicant has argued that:

(i) **Thus, in the invention, different logic webs can be deployed in different remote computing environments. Each logic web is built from a first molecule which invokes a next molecule and so on in order to extend the logic web in that local environment "on the fly", without limitation as to what is happening on other machines. Further, the extension of the logic web can be guided in response to receiving an external communication signal. Thus, each logic web can build its own different application autonomously on each local machine, then change or modify its deployment in response to an external signal. It is not limited to a single shared application that must be run across all machines, as is true in the Huckins system where all machines must run the same shared application and invoke shared functions by generating them locally, packaging them in PDU messages, and multi-casting the PDU messages to the other machines.**

Examiner's response:

(i) In response to Applicant's argument that Regarding the limitations logic web to implement any selected data handling method out of a plurality of data handling

methods stored in a library and logic web incrementally extended "on the fly", Huckins discloses distributed service architecture that enables remote application control among the multiple machine connected by a communication pipe. The Remote implementation (RI) interface, which provides the function, called by the application, which is different for each machine and sending and receiving data units to and from another machine. In doing so, the system does provide a logic web and on the fly communication (see the rejection above and Fig. 1 and 2 and related discussion). Applicant only makes general allegations and does not point out any errors in the rejection. Therefore, the rejection is proper and maintained herein. Further, Applicants had made no response for objection to Specification and double patenting rejection in the office action mailed on May 12, 2005.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Specification

8. Applicant is required to update the status (pending, allowed, etc.) of all parent priority applications in the first line of the specification. The status of all citations of US filed applications in the specification should also be updated where appropriate.

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 21, 22, 24, 25, 26 and 35 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4, of U. S. Patent No. 6,282,697 (hereinafter called '697). Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following observation.

Instant Claim	*'697 Claim*
21. A distributed computing method	2. A computer processing method according to

comprising the steps of: **creating a plurality of software entities ("molecules") each of which is** to be deployed **in a "logic web" in a remote computing environment and is operative to generate its software micro-components forming the molecule autonomously;** wherein a first molecule is created for performing a selected first data processing method in the remote computing environment;	claim 1, wherein said creating step includes **creating a plurality of logic webs each having its web of software entities configured to perform a data processing task with a computing resource autonomously**, and said deploying step includes deploying the plurality of logic webs with respective ones of a plurality of computing resources, respectively. 1. A computer processing method comprising the steps of:... creating a plurality of software entities ("molecules") each of which is configured with software micro-components including a signal handler, at least one input handler, at least one output handler, an interface handler, and at least one method handler for an associated method, said input handler, output handler, and signal handler being operative for sending and receiving communication

	signals to or from another molecule or logic web externally of the respective molecule and being operatively connected to the other micro-components, said at least one input handler being operative for queuing input data, said interface handler being operative for determining when a predefined input conditional for required input data to be received by said input handler is fulfilled and then invoking said method handler, said method handler being operative for invoking said associated method for processing the input data, and said at least one output handler being operative for outputting a result of the processing of input data by said method; storing the created molecules in a library for later run time use;
wherein said first molecule thereupon a next subsequent molecule for implementing a next selected data processing method in the remote computing environment, and	deploying on a given computing resource a logic web comprising **a plurality of molecules selected to perform a given processing task by invoking a first molecule to be retrieved**

similarly for subsequent molecules, and	**from the library and executed on the given computing resource**; and
enabling at least one of the deployed molecules in the remote computing environment to receive a communication signal from an external communication source so as to guide the generation of itself or another molecule based on the signal received from the external communication source, thereby, allowing the "logic web" of molecules performing their respective data processing methods be incrementally extended "on the fly" and guided in response, at least in part, to a communication signal from the external communication source.	**said first molecule invoking one or more other molecules to incrementally extend said logic web "on the fly" by said signal handler of said first molecule sending a communication signal to invoke said other molecule(s).**
22. A distributed computing method according to Claim 21, **wherein each logic web in each computing environment performs its data processing functions in its respective**	2. A computer processing method according to claim 1, **wherein said creating step includes creating a plurality of logic webs each having its web of software entities**

computing environment autonomously, and returns an output which is desired to be obtained from that computing environment.	**configured to perform a data processing task with a computing resource autonomously**, and said deploying step includes deploying the plurality of logic webs with respective ones of a plurality of computing resources, respectively.
24. A distributed computing method according to Claim 23, **wherein the computing environments are a plurality of computing sites distributed on a network, and the logic webs return their outputs by sending signals on the network.**	3. A computer processing method according to claim 2, **wherein said plurality of computing resources are distributed on a network in a distributed computing environment.**
25. A distributed computing method according to Claim 23, **wherein the computing environments are a plurality of computing resources in an array of processing units (CPUs) operated in parallel in a parallel processing environment.**	4. A computer processing method according to claim 2, **wherein said plurality of computing resources include an array of central processing units (CPUs) in parallel in a parallel processing environment.**
26. A distributed computing method accordinq to Claim 21. wherein said	1. A computer processing method comprising the steps of:

	creating a plurality of software entities ("molecules") each of which is configured with
software micro-components include a signal handler, at least one input handler, at least one output handler, an interface handler, and at least one method handler for an associated method,	**software micro-components including a signal handler, at least one input handler, at least one output handler, an interface handler, and at least one method handler for an associated method,** said input handler, output handler, and signal handler being operative for sending and receiving communication signals to or from another molecule or logic web externally of the respective molecule and being operatively connected to the other micro-
said at least one input handler being operative for queuing input data, said interface handler being operative for determining when a predefined input condition for required input data to be received by said input handler is fulfilled and then invoking said method handler, said method handler being operative for invoking said associated method for	components, **said at least one input handler being operative for queuing input data, said interface handler being operative for determining when a predefined input conditional for required input data to be received by said input handler is fulfilled and then invoking said method handler, said method handler being operative for invoking said associated method for**

processing the input data, and said at least one output handler being operative for outputting a result of the processing of input data by said method.	**processing the input data, and said at least one output handler being operative for outputting a result of the processing of input data by said method;** storing the created molecules in a library for later run time use; deploying on a given computing resource a logic web comprising a plurality of molecules selected to perform a given processing task by invoking a first molecule to be retrieved from the library and executed on the given computing resource; and said first molecule invoking one or more other molecules to incrementally extend said logic web "on the fly" by said signal handler of said first molecule sending a communication signal to invoke said other molecule(s).
35. A distributed computing method comprising the steps of: **creating a plurality of software entities ("molecules") each of which** is to be deployed	2. A computer processing method according to claim 1, wherein said creating step includes **creating a plurality of logic webs each having its web of software entities**

in a "logic web" in a remote computing environment and is operative to generate its software micro-components forming the molecule autonomously; wherein a first molecule is created for performing a selected first data processing method in the remote computing environment, wherein the remote computing environment is one of a plurality of network computing sites distributed on a network; and	**configured to perform a data processing task with a computing resource autonomously**, and said deploying step includes deploying the plurality of logic webs with respective ones of a plurality of computing resources, respectively. 1. A computer processing method comprising the steps of: creating a plurality of software entities ("molecules") each of which is configured with software micro-components including a signal handler, at least one input handler, at least one output handler, an interface handler, and at least one method handler for an associated method, said input handler, output handler, and signal handler being operative for sending and receiving communication

	signals to or from another molecule or logic web externally of the respective molecule and being operatively connected to the other micro-components, said at least one input handler being operative for queuing input data, said interface handler being operative for determining when a predefined input conditional for required input data to be received by said input handler is fulfilled and then invoking said method handler, said method handler being operative for invoking said associated method for processing the input data, and said at least one output handler being operative for outputting a result of the processing of input data by said method;
	storing the created molecules in a library for later run time use;
wherein said first molecule thereupon invokes a next subsequent molecule for implementing a next selected data	deploying on a given computing resource a logic web comprising **a plurality of molecules selected to perform a given processing task by invoking a first molecule to be retrieved**

processing method in the remote computing environment, and similarly for subsequent molecules, allowing the "logic web" of molecules to be incrementally extended "on the fly"; and	**from the library and executed on the given computing resource**; and
enabling receipt of a communication signal from an external communication source on the network at any given logic web at any given network computing site to guide, at least in part, the invoking of one or more molecules of said logic web for its performance of one or more selected data processing function sin its extension "on the fly" in its respective computing environment.	**said first molecule invoking one or more other molecules to incrementally extend said logic web "on the fly" by said signal handler of said first molecule sending a communication signal to invoke said other molecule(s).**

The limitation recited in claims 21-26 are obvious variations of limitations in '697 Claims of 1-4.

The limitation recited in claim 35 is obvious variations of limitations in '697 Claim 1.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 21-29, 31, 33, and 35-38 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,038,593 to Huckins, hereinafter called Huckins.

Per claims 21 and 28:

Huckins disclose:

- A distributed computing method (col. 3, lines 11-12 "distributed service architecture") comprising the steps of:
- creating a plurality of software entities ("molecules") (col. 5, lines 51-55 "application 233 creates the class object residing either in the application's own process space or in another process space on the machine 103" also, fig. 2) each of which is to be deployed in a "logic web" in a remote computing environment (see Fig. 1 and related discussion) and is operative to generate its software micro-components forming the molecule autonomously (col. 4, lines 15-18 "the communication pipe supports a multicast protocol wherein a machine does not necessarily have a one to one relationship with another machine" and col. 6, lines 55-67 "the resulting changes to the data may be displayed to the user via the

graphical user interface (GUI) 208 associated with the first application 233" also fig. 1 and fig. 2);

- wherein a first molecule is created for performing a selected first data processing method in the remote computing environment (see Fig. 1 and related discussion);
- wherein said first molecule thereupon a next subsequent molecule for implementing a next selected data processing method in the remote computing environment, and similarly for subsequent molecules (col. 4, lines 18-20 "The RI interface server is for sending and receiving protocol data units (PDUs) to and from another machine through the communication pipe linking the machines"), and
- enabling at least one of the deployed molecules in the remote computing environment to receive a communication signal from an external communication source so as to guide the generation of itself or another molecule based on the signal received from the external communication source (col. 3, lines 21-24 "The RI interface server is for sending and receiving protocol data units (PDUs) to and from another machine through the communication pipe linking the machines"), thereby, allowing the "logic web" of molecules performing their respective data processing methods be incrementally extended "on the fly" and guided in response, at least in part, to a communication signal from the external communication source (col. 3, lines 24-28 "The RI interface is for handling function calls from the application, and for creating an instance of itself, called a local-implementation (LI) interface, in a remote machine").

Per claim 35:

Huckins disclose:

- A distributed computing method (col. 3, lines 11-12 "distributed service architecture") comprising the steps of:
- creating a plurality of software entities ("molecules") (col. 5, lines 51-55 "application 233 creates the class object residing either in the application's own process space or in another process space on the machine 103" also, fig. 2) each of which is to be deployed in a "logic web" in a remote computing environment (see Fig. 1 and related discussion) and is operative to generate its software micro-components forming the molecule autonomously (col. 4, lines 15-18 "the communication pipe supports a multicast protocol wherein a machine does not necessarily have a one to one relationship with another machine" and col. 6, lines 55-67 "the resulting changes to the data may be displayed to the user via the graphical user interface (GUI) 208 associated with the first application 233" also fig. 1 and fig. 2);
- wherein a first molecule is created for performing a selected first data processing method in the remote computing environment, wherein the remote computing environment is one of a plurality of network computing sites distributed on a network (see Fig. 1 and related discussion); and
- wherein said first molecule thereupon invokes a next subsequent molecule for implementing a next selected data processing method in the remote computing environment, and similarly for subsequent molecules (col. 4, lines 18-20 "The RI interface server is for sending and receiving protocol data units (PDUs) to and from another machine through the communication pipe linking the machines"), allowing the

"logic web" of molecules to be incrementally extended "on the fly" (col. 3, lines 24-28 "The RI interface is for handling function calls from the application, and for creating an instance of itself, called a local-implementation (LI) interface, in a remote machine"); and

- enabling receipt of a communication signal from an external communication source on the network at any given logic web at any given network computing site to guide source (col. 3, lines 21-24 "The RI interface server is for sending and receiving protocol data units (PDUs) to and from another machine through the communication pipe linking the machines"), at least in part, the invoking of one or more molecules of said logic web for its performance of one or more selected data processing function sin its extension "on the fly" in its respective computing environment (col. 3, lines 24-28 "The RI interface is for handling function calls from the application, and for creating an instance of itself, called a local-implementation (LI) interface, in a remote machine").

Per claim 22:

The rejection of claim 21 is incorporated, and further, Huckins disclose:

- wherein each logic web in each computing environment performs its data processing functions in respective computing environment autonomously (col. 4, lines 15-18 "the communication pipe supports a multicast protocol wherein a machine does not necessarily have a one to one relationship with another machine" also fig. 1), and returns an output which is desired to be obtained from that computing environment (col. 4, lines 4-6 "a communication pipe 101 is tapped into by multiple machines 103, 105 and 107 in which a copy of the same application will be running" also fig. 1).

Per claims 23, 36, and 38:

The rejection of claims 21 and 35 is incorporated, respectively, and further, Huckins disclose:

- wherein each logic web returns the output for its respective computing environment to an external monitoring entity, and said external monitoring entity combines the outputs from the other computing environments to obtain a combined output of distributed computing (col. 6, lines 65-67 "the resulting changes to the data may be displayed to the user via the graphical user interface (GUI) 208 associated with the first application 233")

Per claims 24, 25, and 37:

The rejection of claims 21 and 36 is incorporated, respectively, and further, Huckins disclose:

- wherein the computing environments are a plurality of computing sites distributed on a network (col. 3, lines 12-14 "a multicast environment and enables remote application control among multiple machines connected by a communication pipe" also fig. 1), and the logic webs return their outputs by sending signals on the network (col. 7, lines 37-46 "message will... received by... machines connected to the pipe 101... control message will contain the new OID "X" and will instruct server 321 to instantiate an associated interface object 329 (a local-implementation (LI) interface) and to associate it with the same OID X")

Per claims 26 and 33:

The rejection of claim 21 is incorporated, and further, Huckins disclose:

- wherein said software micro-components include a signal handler, at least one input handler, at least one output handler, an interface handler, and at least one method handler for an associated method (col. 6, lines 55-67 and col. 7, lines 1-16 also fig. 2),
- said at least one input handler being operative for queuing input data (fig. 2, element 203), said interface handler being operative for determining when a predefined input condition for required input data to be received by said input handler is fulfilled (col. 6, lines 18-24 "Application 233 obtains an interface 209 from COM interface server 203, having a globally unique identifier GUID(j)... an object identification (OID) X. Server 203 has a GUID(j)... access to local implementation of the function f(y) with results of the performed function being displayed to the user through the graphical user interface (GUI) 208") and
- the invoking said method handler, said method handler being operative for invoking said associated method for processing the input data (col. 5, lines 47-54 "function identifier (FID) that is assigned for each function listed in interface 209... functions are redefined by interface definition. Each unique interface, such as IDocument, is identified by a GUID which the client application 233 and server 203 are aware of. The unique interface must also be identically defined by both client and server 203"), and
- said at least one output handler being operative for outputting a result of the processing of input data by said method (col. 6, lines 65-67 "the resulting changes to the data may be displayed to the user via the graphical user interface (GUI) 208 associated with the first application 233")

Per claim 27:

The rejection of claim 21 is incorporated, and further, Huckins disclose:

- wherein said software micro-components are stored in a library installed in the remote computing environment for run time use (col. 8, lines 18-20 "the object can reside in application 135 and will cause changes to data stored in machine 105"), and during run time a logic web is deployed in the given computing environment invoking a first molecule generated with software micro-components to be retrieved from the library and executed in the given computing environment (col. 7, lines 13-17 "GUID for server 301 may be obtained by either embedding the GUID value in the binary code of application 133, or by the application 133 at run time from its application configuration file or the system registry of the operating system"), and said first molecule invoking one or more other molecules to incrementally extend said logic web "on the fly" (col. 3, lines 31-40 "RI server will create a PDU... includes... object identification (OID) of the RI interface and a unique function ID (FID) identifying the particular function that was invoked... PDU is... forwarded to... communication pipe... PDU... received... RI server... the RI server uses the OID and FID contained in the PDU to invoke the function through the previously created LI interface. A local implementation of the function in the remote machine is then performed")

Per claim 29:

The rejection of claim 21 is incorporated, and further, Huckins disclose:

- wherein said creating step includes creating a molecules having a built-in handler function for performing a clean-up of its functions when the molecule is to be terminated (col. 7, lines 21-27 "the switcher task would simply modify the system registry or application configuration file for application 133 to specify GUID(i) of the "distributed" server 301 as the server GUID that application 133 should use for its function calls. To switch back to local mode, the switcher task would reset the configuration file to GUID(j) of the "non-distributed" server 303")

Per claim 31:

The rejection of claim 21 is incorporated, and further, Huckins disclose:

- wherein said software micro-components include signal handler can receive signals for and has a micro-component handler type for dynamically reconfiguring the micro-component handlers of the molecule while in existence to perform a processing task (col. 3, lines 36-40 "PDU is received by a RI server in a remote machine, the RI server uses the OID and FID contained in the PDU to invoke the function through the previously created LI interface. A local implementation of the function in the remote machine is then performed")

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 30, 32, 34, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huckins in view of US Patent No. 5,701,439 to James et al., hereinafter called James.

Per claim 30:

The rejection of claim 21 is incorporated, and further, Huckins disclose wherein said creating step includes creating a molecules having a micro-component handler type for recording information on the state of its micro-components and signaling such state information externally through a signal handler micro-component.

However, James discloses in an analogous computer system a transition diagram showing various states that the system passes through during a normal simulation run (col. 4, lines 58-63 "While in operate..., be desirable to temporarily suspend execution of the simulation, then subsequently return to the operate mode... at some point in time the operate mode will normally be terminated in some orderly fashion, possibly to return to an initialization state. This sequence of states and state transitions is detailed in FIG. 2" also fig. 2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of recording different stats of the program as taught by James into the method of distributing applications for multicast environment systems as taught by Huckins. The modification would be obvious because of one of ordinary skill in the art would be motivated to use stat information to provide data handling in simulation as suggested by James (col. 1, lines 62-67 to col. 2, lines 1-8).

Per claims 32 and 39:

The rejection of claims 26 and 38 is incorporated, respectively, and further, Huckins does not explicitly disclose wherein said interface handler includes a handler type for providing the molecule with the characteristic of autonomously waiting, looking, and proceeding with said associated method for processing input data by waiting until said input handler indicates that the predefined input conditions are present before invoking said method handler for the associated method.

However, James discloses in an analogous computer system a wait queue being used by discrete-event components of the system (col. 4, lines 36-40 "discrete-event components of the system use a set of execution (event) 22, wait 28, and resource 26 queues for each discrete-event process; a single continuous model execution (consim) 24 queue is shared by all continuous model processes" also fig.1, element 28).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of using wait queue feature as taught by James into the method of distributing applications for multicast environment systems as taught by Huckins. The modification would be obvious because of one of ordinary skill in the art would be motivated to implement a wait queue in the system to improve handling of functions calls through the interface for uniform simulation as suggested by James (col. 1, lines 62-67 to col. 2, lines 1-8).

Per claims 34 and 40:

The rejection of claims 26 and 39 is incorporated, respectively, and further, Huckins does not explicitly disclose wherein said input handler is selected from one of a plurality of input handler types corresponding respectively to a plurality of different data source types.

However, James discloses in an analogous computer system the architecture of the combined discrete event and continuous model simulation permits the use of several language models with separate process for each function (col. 4, lines 34-36 "global data and control structures, designated as 20 in FIG. 1, reside in shared memory accessible to any process that requires them" also fig. 1).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of using multiple language feature as taught by James into the method of distributing applications for multicast environment systems as taught by Huckins. The modification would be obvious because of one of ordinary skill in the art would be motivated to implement a multiple language feature in the system to improve handling of functions calls through the interface for uniform simulation as suggested by James (col. 1, lines 62-67 to col. 2, lines 1-8).

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Satish S. Rampuria** whose telephone number is **(571) 272-3732**. The examiner can normally be reached on **8:30 am to 5:00 pm** Monday to Friday except every other Friday and federal holidays. Any inquiry of a general nature or

relating to the status of this application should be directed to the **TC 2100 Group receptionist: 571-272-2100**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wei Y. Zhen** can be reached on **(571) 272-3708**. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Satish S. Rampuria
Patent Examiner/Software Engineer
Art Unit 2191

WEI ZHEN
SUPERVISORY PATENT EXAMINER